

Amendments to the Claims

This listing of the claims will replace all prior versions and listings of the claims.

Listing of Claims:

1-18. (canceled)

19. (original) A method for screening a compound or a salt thereof which promotes or inhibits the protease activity, which comprises using the protein according to claim 1 or a salt thereof.

20-36. (canceled)

37. (New) An isolated protein comprising an amino acid sequence selected from the group consisting of:

- (a) amino acid residues 1 to 775 of SEQ ID NO:15;
- (b) amino acid residues 428 to 437 of SEQ ID NO:15;
- (c) the amino acid sequence of the ADAM polypeptide encoded by the cDNA contained in NIBH Accession No. FERM BP-6474; and
- (d) the amino acid sequence of the ADAM polypeptide encoded by the cDNA contained in IFO Accession NO. IFO 16173.

38. (New) The isolated protein of claim 37 wherein said amino acid sequence is (a).

39. (New) The isolated protein of claim 37 wherein said amino acid sequence is (b).

40. (New) The isolated protein of claim 37 wherein the amino acid sequence is (c).

41. (New) The isolated protein of claim 37 wherein the amino acid sequence is (d).

42. (New) The isolated protein of claim 37, wherein the C-terminus of said protein is a carboxyl group (-COOH), a carboxylate (-COO-), an amide (-CONH₂), or an ester (-COOR).

43. (New) The isolated protein of claim 42, wherein the R in said ester is a C1-6 alkyl group, a C3-8 cycloalkyl group, C6-12 aryl group, a C7-14 aralkyl group, or an α -naphthyl-C1-2 alkyl group.

44. (New) The isolated protein of claim 37, wherein said protein is conjugated to a glycoprotein.

45. (New) A composition comprising the isolated protein of claim 37 and a physiologically acceptable salt.

46. (New) A protein produced by a method comprising:

- (a) expressing the protein of claim 37 by a cell; and
- (b) recovering the protein.

47. (New) An isolated protein comprising a first amino acid sequence 90% or more identical to a second amino acid sequence selected from the group consisting of:

- (a) amino acid residues 1 to 775 of SEQ ID NO:15;
- (b) the amino acid sequence of the ADAM polypeptide encoded by the cDNA contained in NIBH Accession No. FERM BP-6474; and
- (c) the amino acid sequence of the ADAM polypeptide encoded by the cDNA contained in IFO Accession NO. IFO 16173, wherein said protein has proteoglycan degrading activity.

48. (New) The isolated protein of claim 47 wherein the second amino acid sequence is (a).

49. (New) The isolated protein of claim 47 wherein the second amino acid sequence is (b).

50. (New) The isolated protein of claim 47 wherein the second amino acid sequence is (c).

51. (New) The isolated protein of claim 47 wherein said first amino acid sequence is 95% identical to said second amino acid sequence.

52. (New) The isolated protein of claim 47 wherein said first amino acid sequence is 98% identical to said second amino acid sequence.

53. (New) The isolated protein of claim 47, wherein the C-terminus of said protein is a carboxyl group (-COOH), a carboxylate (-COO-), an amide (-CONH₂), or an ester (-COOR).

54. (New) The isolated protein of claim 53, wherein the R in said ester is a C1-6 alkyl group, a C3-8 cycloalkyl group, C6-12 aryl group, a C7-14 aralkyl group, or an α -naphthyl-C1-2 alkyl group.

55. (New) The isolated protein of claim 47, wherein said protein is conjugated to a glycoprotein.

56. (New) A composition comprising the isolated protein of claim 47 and a physiologically acceptable salt.

57. (New) A protein produced by a method comprising:
(e) expressing the protein of claim 47 by a cell; and
(f) recovering the protein.